

IN THE CLAIMS

Please amend the claims as follows:

Claim 1 (Previously Presented): A crystallization apparatus which generates a crystallized semiconductor film by irradiating at least one of a polycrystal semiconductor film and an amorphous semiconductor film with light beams having a predetermined light intensity distribution, comprising:

an irradiation system which is used to irradiate at least one of the polycrystal semiconductor film or the amorphous semiconductor film with light beams having a light intensity distribution with an inverse peak pattern that a light intensity is increased toward the periphery from an inverse peak at which the light intensity is minimum,

wherein a light intensity value α (standardized value) of the inverse peak when a maximum value of the light intensity in the light intensity distribution with the inverse peak pattern is standardized as 1 is selected within a range of $0.2 \leq \text{value } \alpha \leq 0.8$ by irradiating over the light intensity distribution with an inverse peak pattern, light beams having a substantially homogeneous light intensity distribution.

Claim 2 (Original): The crystallization apparatus according claim 1, wherein the light intensity distribution with the inverse peak pattern is a light intensity that an irradiation surface provided to at least one of the polycrystal semiconductor film and the amorphous semiconductor film does not generate ablation.

Claim 3 (Previously Presented): A crystallization apparatus which generates a crystallized semiconductor film by irradiating at least one of a polycrystal semiconductor film and an amorphous semiconductor film with light beams having a predetermined light intensity distribution, comprising:

a first irradiation system which irradiates a predetermined area of at least the polycrystal semiconductor film or the amorphous semiconductor film with light beams having a substantially homogeneous light intensity distribution; and

a second irradiation system which irradiates the predetermined area with light beams having a light intensity distribution with an inverse peak pattern that a light intensity is increased toward the periphery from an area in which the light intensity is minimum, wherein a light intensity value α of the inverse peak is selected by modifying the light intensity of the substantially homogeneous light intensity distribution.

Claim 4 (Previously Presented): The crystallization apparatus according to claim 3, further comprising:

intensity ratio variable means for varying an intensity ratio of the light beams emitted to the predetermined area by the first irradiation system and the light beams emitted to the predetermined area by the second irradiation system.

Claim 5 (Original): The crystallization apparatus according to claim 3, further comprising:

a beam source which can provide light beams having a predetermined wavelength, the light beams being supplied (led) to each of the first and second illumination systems; and

light beam dividing means for dividing the light beams from the beam source into light beams to be supplied to the first irradiation system and the light beams to be supplied to the second irradiation system,

wherein the light beam dividing means can independently set an intensity of the light beams to be supplied to the first irradiation system and an intensity of the light beams to be supplied to the second irradiation system.

Claim 6 (Original): The crystallization apparatus according to claim 5, wherein the first irradiation system includes:

a first illumination optical system used to substantially evenly illuminate a first predetermined surface with light beams divided by the light beam dividing means; and

a first image formation optical system which is arranged in a light path between the first predetermined surface and the predetermined area, and

wherein the second irradiation system includes:

a second illumination optical system used to substantially evenly illuminate a second predetermined surface with the light beams divided by the light beam dividing means;

a light beam modulation element arranged on the second predetermined surface; and

a second image formation optical system which is arranged in a light path between the second predetermined surface and the predetermined area.

Claim 7 (Original): The crystallization apparatus according to claim 6, further comprising:

light beam combining means for combining light beams from the first illumination optical system with light beams from the second illumination optical system.

Claim 8 (Previously Presented): The crystallization apparatus according to claim 6, wherein both the first irradiation system and the second irradiation system irradiate the predetermined area from directions different from each other.

Claim 9 (Original): The crystallization apparatus according to claim 8, further comprising:

measuring means for measuring a light intensity distribution in the predetermined area,

wherein an intensity ratio of light beams having the homogeneous light intensity distribution and light beams having the light intensity distribution with the inverse peak pattern is changed in accordance with a measurement result of the measuring means.

Claims 10-11 (Canceled).